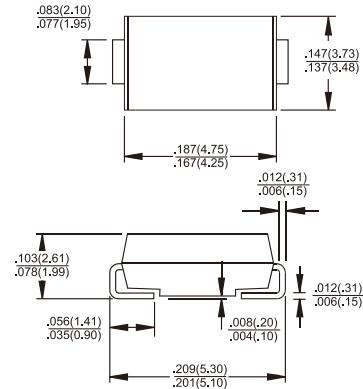


RS2A - RS2M

2.0 AMPS. Surface Mount Fast Recovery Rectifiers

SMB/DO-214AA



Dimensions in inches and (millimeters)

Marking Diagram



RS2X = Specific Device Code
 G = Green Compound
 Y = Year
 M = Work Month

Features

- ✧ UL Recognized File # E-326243
- ✧ For surface mounted application
- ✧ Glass passivated junction chip
- ✧ Built-in strain relief, ideal for automated placement
- ✧ Plastic material used carries Underwriters Laboratory Classification 94V-0
- ✧ Fast switching for high efficiency
- ✧ High temperature soldering: 260 °C / 10 seconds at terminals
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode.

Mechanical Data

- ✧ Cases: Molded plastic
- ✧ Terminals: Pure tin plated, Lead free.
- ✧ Polarity: Indicated by cathode band
- ✧ Packing: 12mm tape per EIA STD RS-481
- ✧ Weight: 0.093 grams

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.
 Single phase, half wave, 60 Hz, resistive or inductive load.
 For capacitive load, derate current by 20%

| Type Number | Symbol | RS 2A | RS 2B | RS 2D | RS 2G | RS 2J | RS 2K | RS 2M | Units |
|---|--------------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|
| Maximum Recurrent Peak Reverse Voltage | VRRM | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | VRMS | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | VDC | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified Current See Fig. 1 @ T _L =100°C | IF(AV) | 2.0 | | | | | | | A |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | IFSM | 50 | | | | | | | A |
| Maximum Instantaneous Forward Voltage @ 2.0A | VF | 1.3 | | | | | | | V |
| Maximum DC Reverse Current at @ T _A =25 °C | IR | 5 | | | | | | | uA |
| Rated DC Blocking Voltage (Note 1) @ T _A =125 °C | | 200 | | | | | | | uA |
| Maximum Reverse Recovery Time (Note4) | Trr | 150 | | | 250 | 500 | | | nS |
| Typical Junction Capacitance (Note 2) | Cj | 50 | | | | | | | pF |
| Typical Thermal Resistance (Note 3) | R _{θJA} R _{θJL} | 55 18 | | | | | | | °C /W |
| Operating Temperature Range | T _J | -55 to +150 | | | | | | | °C |
| Storage Temperature Range | T _{STG} | -55 to +150 | | | | | | | °C |

- Notes: 1. Pulse Test with PW=300 usec, 1% Duty Cycle
 2. Measured at 1 MHz and Applied V_R=4.0 Volts
 3. Mounted on P.C.B. with 0.4" x 0.4" (10mm x 10 mm) Copper Pad Areas.
 4. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

RATINGS AND CHARACTERISTIC CURVES (RS2A THRU RS2M)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

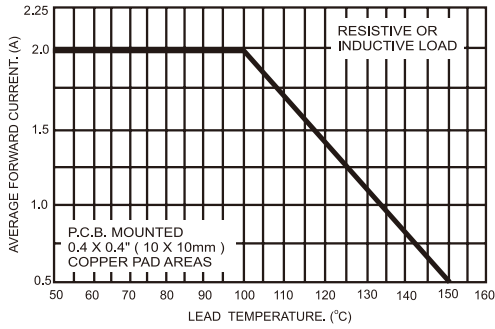


FIG.2- TYPICAL REVERSE CHARACTERISTICS

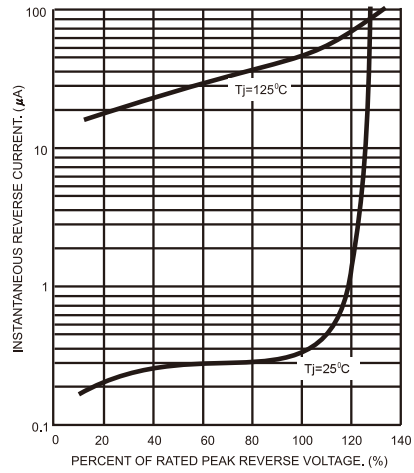


FIG.3- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

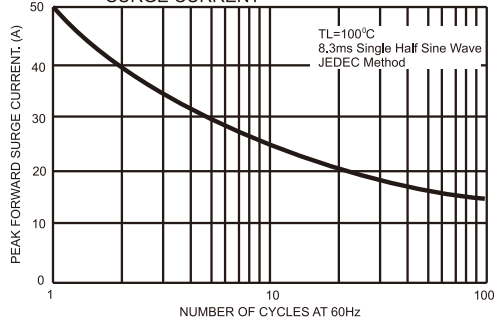


FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

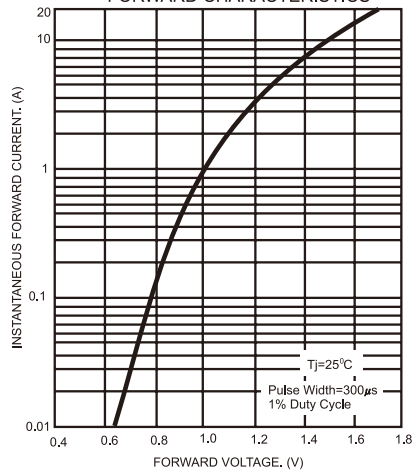


FIG.4- TYPICAL JUNCTION CAPACITANCE

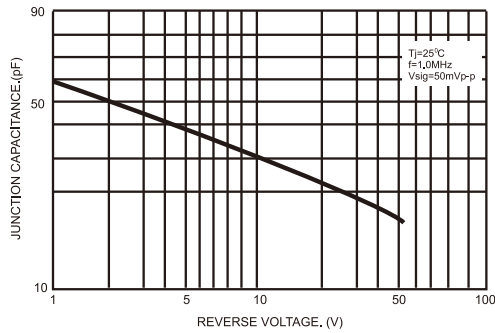


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

